WO 2004/008148

THE CLAIMS:

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- 1. A method for the detection of bioactive peptides derived from a precursor protein or protein-containing biological extract, comprising the steps of:
 - (i) providing a library of peptides derived from said precursor protein or protein-containing biological extract;
 - (ii) optionally screening said library to confirm that it includes peptides exhibiting one or more biological activities;
 - (iii) separating said library to provide fractions of the library;
 - (iv) screening said fractions to identify active fractions which include peptides exhibiting said one or more biological activities;
 - (v) optionally separating each said active fraction to provide sub-fractions thereof, and screening said sub-fractions to identify active sub-fractions which include peptides exhibiting said one or more biological activities; and
 - (vi) isolating from said active fractions or active sub-fractions one or more peptides exhibiting said one or more biological activities.
- 2. The method according to claim 1, wherein said library of peptides is derived by enzymatic cleavage of the precursor protein or protein-containing biological extract.
- 3. The method according to claim 1, wherein said library of peptides is derived by chemical cleavage of the precursor protein or protein-containing biological extract.
 - 4. The method according to claim 1, wherein said library of peptides is derived by physical digestion of the precursor protein or protein-containing biological extract.
- 5. The method according to any one of claims 1 to 4 wherein said precursor protein or protein-containing biological extract, or said unfractionated peptide library, is subjected to a determination of optimal cleavage conditions by monitoring the extent or progress of cleavage or digestion.
 - 6. The method according to claim 5, wherein said determination comprises mass spectometry analysis.

- 7. The method according to claim 6 wherein said determination comprises MALDI-ToF MS analysis.
- 8. The method according to any one of claims 6 or 7 wherein said determination is automated.
- 5 9. The method according to claim 1, wherein said library of peptides is provided by chemical synthesis.
 - 10. The method according to any one of claims 1 to 9, wherein said peptides comprise at least 2 amino acids.
- 11. The method according to claim 9, wherein said peptides comprise at least 5 amino acids.
 - 12. The method according to any one of claims 1 to 11 wherein said peptides are peptide variants.
 - 13. The method according to any one of claims 1 to 12, wherein said peptides comprise peptides whose biological activity is predictable by amino acid sequence analysis.
- 15 14. The method according to any one of claims 1 to 12, wherein said peptides comprise peptides whose biological activity is not predictable by amino acid sequence analysis.
 - 15. The method according to any one of claims 1 to 14 wherein said precursor protein is a naturally occurring protein.
- 20 16. The method according to any one of claims 1 to 14 wherein said precursor protein is a non-naturally occurring protein.
 - 17. The method according to any one of claims 1 to 14 wherein said precursor protein is a recombinant protein.
- 18. The method according to any one of claims 1-17 wherein said biological activity is agonist activity.

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- 19. The method according to any one of claims 1-17 wherein said biological activity is antagonist activity.
- 20. The method according to any one of claim 1-19 wherein said biological activity relates to any human condition.
- 5 21. The method according to claim 20 wherein said biological activity relates to conditions selected from the group consisting of arterial and venous thrombosis, inflammation, angiogenesis and cancer.
- The method according to any one of the preceding claims wherein said screening of step (ii) and/or step(iv) is carried out using an assay selected from the group consisting of biochemical-based assays and cell-based assays.
 - 23. The method according to claim 22 wherein said assay is selected from the group consisting of luminescence based assays for platelet activation, laser-based methods for Prothrombin Time and Activated Partial Thromboplastin Time, luminescence and fluorescence based detection of cell proliferation, cell toxicity and apoptosis and *in vivo* assays.
 - 24. The method according to claims 22 or 23 wherein said assay is high throughput and automated.
- 25. The method according to any one of the preceding claims wherein said fractionation of step (iii) and/or step (v) is carried out by a fractionation method selected from the group consisting of chromatography, field flow fractionation and electrophoresis.
 - 26. The method according to claim 25 wherein said fractionation of step (iii) and/or step (v) is carried out by chromatography.
- An isolated peptide exhibiting one or more biological activities, which has been detected by the method according to any one of claims 1-26.

28. The method according to claim 1 substantially as hereinbefore described with reference to the examples and/or figures.